

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE	PAGE OF PAGES 1 17
2. AMENDMENT/MODIFICATION NO. <b>66</b>	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY CODE John F. Kennedy Space Center, NASA Procurement Office – ODIN – OP-OS-ODIN Kennedy Space Center, FL 32899		7. ADMINISTERED BY (If other than Item 6) CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)  OAO Corporation 7375 Executive Place Seabrook, MD 20706-2278		(x) 9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  10A. MODIFICATION OF CONTRACT/ORDER NO.  <b>NAS5-98144/NNK05OA12D</b>  10B. DATED (SEE ITEM 13)  December 1, 2004	
CODE	FACILITY CODE		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.			
12. ACCOUNTING AND APPROPRIATION DATA (If required)			

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.	
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: <b>NAS5-98144 Contract Clause C.7 Technology Refreshment Process and FAR Clause 52.212-4 Contract Terms and Conditions-Commercial Items, (c) Changes</b>	
D. OTHER (Specify type of modification and authority)	

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

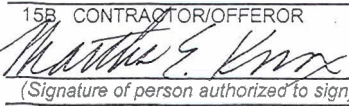
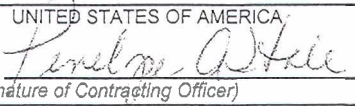
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

## Stennis Space Center --- ODIN SERVICES

Technology Infrastructures: Incorporation of 13 Infrastructure Upgrades Previously Approved Utilizing Fast Track Process

Change in Delivery Order Price: \$208,459.78 (INCREASE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Martha E. Knox Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Penelope A. Hale Contracting Officer	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 5/17/06	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 5/18/2006
NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE		30-105	

STANDARD FORM 30 (Rev. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

1. In accordance with Master Contract NAS5-98144, C.7, Technology Infusion (Infrastructure), the infusion services referenced below are hereby incorporated into this Delivery Order at a fixed price of \$208,459.78.

<b>FT Approval Date</b>	<b>SWR/Description</b>	<b>Amount</b>
3/24/2006	<b>CM00 6003 00</b> Install network switch in room 120B of B2040 and install and terminate Cat6 jacks for DHS/ICE	\$ 18,388.07
3/24/2006	<b>KTR4 1100 02, Rev 01</b> Install new Cat5 jacks and faceplates on 2nd and 3rd floor of B1100	\$ 25,017.66
3/16/2006	<b>KTR4 6MAG 00</b> Replace and install 200-pair copper cable and aerial strand from Lower Gainesville Road to B2437 & B2438 damaged during Hurricane Katrina	\$ 11,726.65
3/24/2006	<b>KTR4 RLPR RP</b> Remove copper and fiber cables from B1209	\$ 380.79
3/24/2006	<b>NSS1 1UP5 00</b> Install two Cisco switches (DMZ VLAN and SSC Campus VLAN) and install 12-strand singlemode fiber cable in B5100 from MER102 to AER245 to support the new switches	\$ 42,461.27
4/3/2006	<b>KTR4 5100 00</b> Two (2) PolyComm Conference Phone and install Cat3 an Cat53 wiring on second floor of B5100 for FEMA; installation includes testing, temporary labeling and documentation	\$ 19,260.06
4/11/2006	<b>KTR4 6BUT 00</b> To tighten up aerial strand which supports existing copper and fiber cables located on existing pole route between B2406 down to B2436, then to B2425; and raise cables where needed	\$ 1,275.46
4/20/2006	<b>NSS1 3NET 00</b> Install Cat5e wiring to support network and telephones in B5100 for NSSC	\$ 31,684.18
4/20/2006	<b>J1RD 6805 00, Rev 01</b> Install Cat6 wiring on control room floor to support networks that are used in support of Rocketdyne engine testing	\$ 11,872.03

<b>FT Approval Date</b>	<b>SWR/Description</b>	<b>Amount</b>
4/28/2006	<b>KTR4 6ANT 00, Rev 02</b> Repair of satellite dishes and support equipment that were damaged by Hurricane Katrina located at B1201	\$ 24,507.48
4/20/2006	<b>NMC0 6R40 00</b> Install (2) red Cat6 wires to support new classified SIPRNET network for CNMOC on the 2nd floor of B1100 South new addition	\$ 15,653.56
4/20/2006	<b>1000 DCM6 12</b> Create and test installation of CAC Card Reader software for DCMC, including how to activate the Smart Card Service on all affected desktops	\$ 696.96
4/24/2006	<b>XK55 6501 00, Rev 01</b> Relocation of Lightning Detection System from building 4995 to building 4210	\$ 5,535.61
	<b>TOTAL</b>	\$ 208,459.78

**2. SWR CM00 6003 00**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), to install network switch in B2040 for DHS/ICE and cutover analog lines that are used for the STU telephones from the existing D4 Channel Bank in B2040 to the existing UMC chassis using new POTS cards in B1201 and B2040; as outlined in OAO proposal dated February 27, 2006. This work will include testing, labeling, and configuration documentation (red line drawings). Support contract costs for three years after installation is included in this effort for the CISCO devices.

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

ODIN will work:

- (1) Install one new Cisco Catalyst 3750G-24TS-S1U in RM 120B at B2040
- (2) Install (2) Cat 6 jacks on wiring that was placed by DHS/ICE to rooms 103, 105A, and 122, and terminate on new patch panel in RM 120B
- (3) Install POTS cards in existing UMC chassis in B1201 and B2040 and cutover existing circuits.
- (4) Remove existing D4 channel bank once the circuits have been cutover over to the POTS cards in the UMC chassis.
- (5) Trunk new Cisco Catalyst 3750 in 2040 RM 120B at 2204-CSC1
- (6) Move all current users to new network devices.
- (7) Update all Databases
- (8) Ensure the new switch is on the CiscoWorks Map
- (9) Ensure the new switch is being monitored by Ehealth

- (10) Update drawings
- (11) Update security plans
- (12) Test and label Cat6 wiring at both ends

b. The material to be provided in conjunction with the above service is as follows:

- (1) 1,000 feet of Avaya 2071 level 7 plenum wire (CMP-00424AVA-7U-04)
- (2) 6 each 3 feet Cat6 station cords (MM03-AV7E-04) green
- (3) 6 each Systimax MGS400 T568A/B Cat6 jacks (246746) green
- (4) 6 each 14 feet Cat6 patch cords (MM14-AV7E-04) green
- (5) 3 each Avaya M14L-262 faceplates (197613) white
- (6) 3 each RST POTS channel unit (0110-0148)
- (7) 3 each LET POTS channel unit (0110-0150)
- (8) 2 each 2 meter ST-ST singlemode fiber jumpers (152027)
- (9) 2 each 7 meter ST-LC singlemode fiber jumper (266862)
- (10) 2 each 2 meter ST-SC singlemode fiber jumper (152037)
- (11) 1 each Avaya GigaSpeed patch panel 24-port (246728)
- (12) 1 pack of 110C-4 connectors (073039)
- (13) 1 each cable management panel (219824)
- (14) 3 each CON-SNT-3750GS1U SMARTNET 8X5XNBD CAT3750 24
- (15) 2 each Cisco 1000Base-LX/LH SFP (GLC-LH-SM) (B2040)
- (16) 2 each Cisco 1000-Base LX (WS-G5486) (B2204)
- (17) 1 each Cisco Catalyst 3750G-24TS-S1U (B2040)
- (18) 1 each CAB-STACK-50CM stacking cable
- (19) 1 each CAB-AC power cord 110V

c. Schedule: The completion of this effort shall be 7 weeks after receipt of Fast Track approval (March 24, 2006).

### 3. SWR KTR4 1100 02, Rev 01

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and equipment installation and materials necessary to install (217) new Ortronics Cat5 and USOC jacks and faceplates to replace Digital Cat3 and USOC jacks and faceplates that were damaged during Hurricane Katrina and replace three 100-pair protectors in room 2016A that feed from B1201, as outlined in OAO proposal dated February 23, 2006. This work will include testing, labeling, and configuration documentation (red line drawings).

a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

- (1) Install (217) dual Ortronics Cat5 jacks to replace the corroded Digital Cat3 jacks that were removed by repair contractor when replacing wet sheetrock. The Digital Cat3 type jacks can't be purchased anymore.
- (2) Install (217) dual Ortronics USOC jacks to replace the corroded Digital USOC jacks that were removed by repair contractor when replacing wet sheetrock. The Digital USOC type jacks can't be purchased anymore.
- (3) Install the above Ortronics jacks in a singlegang faceplate at each location to replace the outdated Digital faceplate that can't be purchased anymore.

- (4) Remove (3) existing 100-pair protectors in room 2016A that had water damage and install (3) new 100-pair protectors.
- (5) Run the tails of the (3) 100-pair protectors down thru existing conduits to room 1016A and make a 300-pair splice and put in existing splice case.
- (6) Install (86) new Cat3 wires on the 3<sup>rd</sup> floor due to NASA changing the floor plan from the way it was before the storm to a new floor plan. Cubicles will be put in most places to take the place of offices.
- (7) Install Panduit raceway from ceiling down behind cubicles and place Panduit deep outlet boxes in all new cubicles to hold new jacks.
- (8) Test and label jacks.
- (9) Provide ODIN draftsman a redline drawing showing jack numbers and jack locations so drawings can be updated for all three floors.

b. The material to be provided in conjunction with the above service is as follows:

- (1) 15,000 feet of plenum Systimax Cat3 white wire (CMP-00424MAX-3U)
- (2) 300 Circa protector modules 3B1E (215690)
- (3) 289 each 14-feet Cat5e patch cords (MM14-AX5-06) blue
- (4) 217 each Ortronics blanks (148027)
- (5) 217 each Ortronics singlegang faceplates (148025)
- (6) 217 each Ortronics dual T568A/B Cat5e jacks (248945)
- (7) 217 each Ortronics dual USOC jacks (138035)
- (8) 86 each Systimax M1BH Cat3 gray jack (240707)
- (9) 64 each Panduit deep outlet boxes (201336)
- (10) 50 each 25-feet Cat5e patch cords (MM25-AX5-06) blue
- (11) 30 each Panduit LD10 raceway (131155)
- (12) 3 each Circa 100-pair protectors (1880B1-100-50)

c. Schedule: The completion of this effort shall be 8 weeks after receipt of Fast Track approval (March 24, 2006).

#### 4. SWR KTR4 6MAG 00

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and equipment installation and materials necessary to remove and install new 200-pair copper cable to replace 200-pair copper cable that was damaged by Hurricane Katrina, as outlined in OAO proposal dated February 9, 2006. This work shall include testing, labeling, and configuration documentation (red line drawings).

a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

- (1) Install (1) 14" thru bolt & (2) square washers and (1) square nut on (6) poles.
- (2) Install (1) 3/8" aerial strand from the pole next to Lower Gainesville Road up to the last pole behind B2437 & B2438.
- (3) Install 200-pair aerial copper cable from pedestal located on Lower Gainesville Road up to pole located behind B2437 & B2438.
- (4) Make a 200-pair splice in pedestal at the base of the pole by B2437.

- (5) Make a 200-pair splice in pedestal at Lower Gainesville Road.
- (6) Test and label cable at both ends.
- (7) Provide ODIN with redline drawing showing cable route and footage between poles.
- (8) Lash existing fiber cable that wasn't damaged to the same strand that was installed in item (2) above.
- (9) Lash existing 25-pair copper cable 10 that feeds from B1201 to the same strand that was installed in item (2) above.
- (10) Remove old 200-pair copper cable that was damaged by falling trees during Hurricane Katrina.
- (11) Place guy wires where needed.

b. The materials to be provided in conjunction with the above service are as follows:

- (1) 2,000 feet of stainless steel lashing wire (003610)
- (2) 1,600 feet of 200-pair copper cable (E-020024AAC)
- (3) 1,450 feet of 3/8" galvanized steel strand (159634)
- (4) 18 square nuts (003927)
- (5) 18 each square washers (004149)
- (6) 10 each lashing wire clamps (003230)
- (7) 9 each 14" thru bolts (003813)
- (8) 8 each Mclean 3/8" strandvise (003296)
- (9) 5 each thimbleye nuts (003904)
- (10) 4 each cable suspension clamps (003258)

c. Schedule: The completion of this effort shall be 8 weeks after receipt of Fast Track approval (March 16, 2006).

#### **5. SWR KTR4 RLPR RP**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), necessary to remove copper and fiber cables from B1209, 1 Main Street Mars, so that the building can be removed from the site, as outlined in OAO proposal dated March 8, 2006. This work shall include testing, labeling, and configuration documentation (red line drawings).

a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

- (1) Remove copper and fiber from 1 Main Street Mars building.
- (2) Pull cable back to the 1<sup>st</sup> hand hole located behind B1206 and coil up so that it could be used at a later date.

b. No material required for this effort.

c. Schedule: The completion of this effort shall be 1 week after receipt of Fast Track approval (March 24, 2006).

#### **6. SWR NSS1 1UP5 00**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building

Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and equipment installation and materials necessary to install two Cisco Cat3750G-48TS-S; one switch will be in the DMZ VLAN and one will be in the SSCCampus VLAN; also, install 12-strand singlemode fiber cable from MER102 up to AER245 to support (2) new switches being installed in room AER245, as outlined in OAO proposal dated February 7, 2006. This work will include testing, labeling, and configuration documentation (red line drawings).

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

ODIN to work:

- (1) Install two Cisco WS-C3750G-48TS-S in room AER245 of building 5100
- (2) Trunk both switches to SSCCuda and SSCTuna
- (3) Prune one switches VLANS to include only scan and dmz0 VLANS
- (4) Prune one switches VLANS to include only SSCLAN and SSCCampus VLANS
- (5) Update all Databases
- (6) Ensure all three Cisco devices are on the CiscoWorks Map
- (7) Ensure all three Cisco devices are being monitored by Ehealth
- (8) Update drawings
- (9) Update security plans

BOE-TEL to work:

- (1) Install (1) 12-strand singlemode fiber cable from MER102 to AER245 and terminate one end in ST connectors and place in existing 600B fiber panel in room AER245 and terminate the other end into ST connectors and place in existing LGX fiber panel in room MER102.
- (2) Install (12) singlemode ST couplers in the existing 600B fiber panel in room AER245.
- (3) Install (12) singlemode ST couplers in the existing LGX fiber panel in room MER102.
- (4) Test and label fiber at both ends.
- (5) Provide ODIN with a redline drawing showing route taken with fiber so that drawings can be updated.

- b. The materials to be provided in conjunction with the above service are as follows:

ODIN to purchase:

- (1) 8 each Cisco 1000Base-LX/LH SFP (GLC-LH-SM)
- (2) 6 each SMARTNET 8x5xNBD Cat 3750 48 10/100/1000T + 4 SFP standard (CON-SNT-3750G48T)
- (3) 2 each Cisco WS-3750G-48TS-S
- (4) 2 each Cisco StackWise 50CM Stacking cable (CAB-STACK-50CM)
- (5) 2 each Cisco power cord 110v (CAB-AC)

BOE-TEL to purchase:

- (1) 425 feet singlemode MIC plenum fiber cable (370-948-SMODE-12)
- (2) 24 each cool cure consumables (142172)
- (3) 24 each P3020A-C-125 singlemode ST connectors (157475)
- (4) 24 each C3000A2 singlemode ST connectors (105263)
- (5) 4 each 30-meter SM fiber jumper ST/LC (264453)
- (6) 4 each 10-meter SM fiber jumper ST/ST (151990)

- (7) 4 each 3-meter SM fiber jumper ST/ST (151988)
- (8) 4 each 7-meter SM fiber jumper ST/SC (266846)
- (9) 1 pack Premier black cable ties (739308)
- (10) 1 each UPS network management card (AP9617)
- (11) 1 each APC Smart-UPS XL10000VA USB & Serial 120V (SUA1000XL)
- (12) 1 each TRIPP LITE ISOBAR 1220ULTRA (200111)

- c. Schedule: The completion of this effort shall be 6 weeks after receipt of Fast Track approval (March 24, 2006).

## **7. SWR KTR4 5100 00**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and equipment installation and materials necessary to install two (2) PolyComm Conference Phones; install Cat3 and Cat5e wiring on second floor of B5100 for FEMA; and install 100 temporary phone jacks on the 2<sup>nd</sup> floor of Bldg 5100 for FEMA personnel in support of Hurricane Katrina recovery efforts; as outlined in OAO proposal dated December 22, 2005.

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

ODIN to work:

- (1) Port construction, number assignment, man machine updates, and activation.

BOE-TEL will work:

- (1) Install temporary cabling, jacks, & cross connects for twenty-four PH2 digital telephones, 2 PolyComm Conference Phones (PH4s) and 74 analog jacks.
- (2) Install (1) GFE 100-pair and (1) GFE 25-pair copper cable from MER102 up to AER245 and install on 110 wiring blocks in both closets to be used to support the telephones.
- (3) Test and label all drops.
- (4) Remove all temporary connectivity upon completion of FEMA activity.

- b. The materials to be provided in conjunction with the above service are as follows:

BOE-TEL will purchase:

- (1) 8,000 feet of 4-pair level 3 PVC wire (CM-00424BBG-3U)
- (2) 1,000 feet of Berk-Tek Cat5e plenum wire (CMP-0024LAN-6U-01)
- (3) 100 each surface mount jacks (059476)
- (4) 10 each Ortronics TracJack (248920) white
- (5) 10 each Ortronics TracJack (248938) gray
- (6) 6 each Systimax 110AW2-100 pair wiring block (154069)
- (7) 5 packs of 110C-4 connectors (073039)
- (8) 5 each Ortronics TracJack faceplate (189457)
- (9) 4 packs of 110C-5 connectors (061268)
- (10) 5 packs of TYCO/AMP 8 pin modular plugs (177118) 25/pk
- (11) 1 each Systimax 110AW2-300 pair wiring block (154071)

FEMA to purchase:

- (1) 74 each AT&T Design Line corded phone (AT&T 146)

- b. Schedule: Delivery authorized after receipt of Fast Track approval (April 3, 2006).

#### **8. SWR KTR4 6BUT 00**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), necessary to tighten up aerial strand that supports existing copper and fiber cables between B2406 down to B2425; and raise cables where needed; as outlined in OAO proposal dated February 24, 2006.

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

- (1) Tighten up strand on existing aerial copper and fiber cables that are on the existing pole route between B2406 down to B2436 and then on to B2425.
- b. No material required for this effort.
- c. Schedule: The completion of this effort shall be 8 weeks after receipt of Fast Track approval (April 11, 2006).

#### **9. SWR NSS1 3NET 00**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), for installation of Cat5e wiring to support network and telephones in B5100 for NSSC; as outlined in OAO proposal dated March 13, 2006. This work will include testing, labeling, and configuration documentation (red line drawings).

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

BOE-TEL will work:

- (1) Install (2) Cat5e plenum wires to (19) locations on the 1<sup>st</sup> floor of B5100 to be used for networks and terminate in white Cat5e jacks.
- (2) Install (2) Cat5e plenum wires to (19) locations on the 1<sup>st</sup> floor of B5100 to be used for telephones and terminate in gray Cat5e jacks.
- (3) Terminate the other end of all the wiring to part of an existing Cat5e patch panel and (1) new 48-port Cat5e patch panel in room MER102. Install wire management panel between the old and new 48-port patch panel in MER102.
- (4) Install Caddy J-hooks above ceiling to place wiring from rooms to cable tray.
- (5) Install Flextray in room MER102 to connect patch panel rack with network switch rack.
- (6) Install Caddy faceplate clips in sheetrock walls to hold faceplates in room M110, M110A & M112.
- (7) Install surface mount box to hold jacks in modular furniture that doesn't contact wall.

- (8) Install MONO systems faceplate receptacle to hold jack in system that presently holds communications and electrical in room M155.
- (9) Provide 14 feet patch cords for ODIN to install between the network switch and patch panels in room MER102 to activate jacks and to connect PC's to network jacks.
- (10) Test and label wiring at both ends.
- (11) Provide ODIN with redline drawings showing jack numbers and locations.

ODIN will work:

- (1) Install one Cisco WS-C3750G-48TS-S in room MER102 of building 5100
- (2) Trunk the switch to SSCCuda and SSCTuna using spanning tree.
- (3) Update all Databases
- (4) Ensure the switch is on the CiscoWorks Map
- (5) Ensure the switch is on being monitored by Ehealth
- (6) Ensure UPS is configured to be monitored
- (7) Update drawings
- (8) Update security plans

b. The materials to be provided in conjunction with the above service are as follows:

BOE-TEL will purchase:

- (1) 20,000 feet of BERK-TEK Cat5e plenum wire (CMP-00424LAN-6U-01)
- (2) 96 each Systimax 14 feet Cat5e patch cords (MM14-AV6-10)
- (3) 50 each Velcro ties
- (4) 38 each Ortronics Trac jack white (248920)
- (5) 38 each Ortronics Trac jack gray (248938)
- (6) 30 each Caddy J-hooks (184873)
- (7) 16 each Ortronics Trac jack faceplate (189457)
- (8) 12 each Mono Systems faceplate receptacle (SMS4277CJ-1)
- (9) 4 packs of 110C-4 connectors (073039)
- (10) 4 each Caddy clips (157703)
- (11) 4 each 1-meter single-mode ST/ST fiber jumpers (151986)
- (12) 3 each Ortronics Trac jack surface mount box (192461)
- (13) 2 each 1-meter ST/LC single-mode fiber jumpers (264451)
- (14) 2 each 7-meter single-mode ST/SC fiber jumpers (266846)
- (15) 1 each Ortronics wire management panel (130227)
- (16) 1 each Ortronics 48-port Cat5e patch panel (248952)
- (17) 1 each Flextray 2" x 8" x 10' (174337)
- (18) 1 each APC Smart-UPS XL 750VA USB & Serial 120V (SUA750XL)
- (19) 1 each APC Network Management Card (AP617)
- (20) 1 each Tripp Lite Isobar Rackmount Surge Suppressors with 8 outlets (Anixter 200111)

ODIN will purchase:

- (1) 4 each Cisco 1000Base-LX/LH SFP (GLC-LH-SM)
- (2) 1 each Cisco WS-3750G-48TS-S

c. Schedule: The completion of this effort shall be 4 weeks after receipt of Fast Track approval (April 20, 2006).

**10. SWR J1RD 6805 00, Rev 01**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and install Cat6 wiring on control room floor to support networks that are used to support Rocketdyne engine testing; as outlined in OAO proposal dated January 25, 2005. This work will include testing, labeling, and configuration documentation (red line drawings).

a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

BOE-TEL will work:

- (1) Install (1) lockable box on A1WCCS concrete column, (1) on A2WCCS concrete column and (1) on the drywall behind bay 1046.
- (2) Install (1) Visipatch panel in room B101 next to existing wall mount cabinet equipped with network switch.
- (3) Install (12) Cat6 wires to A1WCCS concrete column and terminate on (12) Cat6 jacks and install in lockable box.
- (4) Install (12) Cat6 wires to A2WCCS concrete column and terminate on (12) Cat6 jacks and install in lockable box.
- (5) Install (12) Cat6 wires to sheetrock wall behind bay 1046 and terminate on (12) Cat6 jacks and install in lockable box.
- (6) Terminate (36) Cat6 wires that were installed in items (4, 5 & 6) above to (1) Visipatch panel that was installed in item (2) above.
- (7) Provide (36) plenum rated 65 feet Cat6 station cables to Gary Marshall so that he can install to the locations where his computers are located.
- (8) Test and label both ends of the Cat6 wiring.
- (9) Remove all the old Cat5e wiring once the computers have been cutover to new Cat6 wiring.
- (10) Provide ODIN with a redline drawing showing jack numbers and locations.

ODIN will work:

- (1) Remove old cross connects and place new ones to activate new jacks.

b. The materials to be provided in conjunction with the above service are as follows:

BOE-TEL will purchase:

- (1) 5,000 feet of Systimax 2071 plenum level 7 wire (CMP-00424AVA-7U-04)
- (2) 40 each Velcro ties
- (3) 36 each Systimax 65 feet plenum Cat6 patch cords (CPC3372-04F065)
- (4) 36 each Ortronics Cat6 Trac Jacks (257875)
- (5) 6 each Systimax Visipatch distribution rings (532421)
- (6) 6 each Panduit 2" x 2" x 5' solid wall raceway (FS2X2BL6NM)
- (7) 3 each Ortronics MUTOA cabinet (OR-401045461)
- (8) 1 each Systimax 336-pair Visipatch panel (532210)
- (9) 1 each Systimax Visipatch horizontal duct (539650)

c. Schedule: The completion of this effort shall be 12 weeks after receipt of Fast Track approval (April 20, 2006).

**11. SWR KTR4 6ANT 00, Rev 02**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and repair of satellite dishes and support equipment that were damaged by Hurricane Katrina located at B1201 for NASA; as outlined in OAO proposal dated April 11, 2006. This work will include testing, labeling, and configuration documentation (red line drawings).

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

STARVISION will work:

Satellite Dish 1

- (1) Solid fiberglass antenna is undamaged.

Satellite Dish 2:

- (1) Install (1) 12' commercial grade aluminum antenna assembly.
- (2) Install (1) dual C-band feed-horn.
- (3) Install (2) Norsat model 8515 digital LNB.
- (4) Install (1) stiff arm for stationary mount.
- (5) Install (1) dual ground block.
- (6) Install (6) RG-6 compression fittings.
- (7) Install (15) feet of RG-6 Siamese coaxial cable at dish.
- (8) Labor to assemble, install and peak antenna and dispose of old antenna.

Satellite Dish 3:

- (1) Install (1) 12' commercial grade aluminum antenna assembly.
- (2) Install (1) C/Ku band feed-horn.
- (3) Install (2) Norsat model 8515 digital LNB.
- (4) Install (1) Norsat model 4206 digital Ku LNB.
- (5) Install (1) Venture 24" ball screw actuator with rubber boot.
- (6) Install (1) dual ground block.
- (7) Install (6) RG-6 compression fittings.
- (8) Install (15) feet of RG-6 Siamese coaxial cable at dish.
- (9) Install (1) 5 ½" to 3 ½" mast adapter on existing pole.
- (10) Dig 100 feet trench from dish to wall of B1201 so that conduit can be placed.
- (11) Install 100 feet of 1 ½" PVC conduit including fittings and hardware.
- (12) Install 175 feet of RG6 Siamese coaxial cable (flooded) in conduit placed in item (11) above.
- (13) Install 175 feet of actuator control cable in same conduit with the coaxial cable.
- (14) Labor to install cables, terminate both ends, assemble, install and peak antenna and dispose of old antenna.

Satellite Dish 4:

- (1) Excavate soil around existing concrete structure and form up using 2" x 6" lumber.
- (2) Pour 1000 lbs of concrete into the new form
- (3) Install (6) RG-6 compression fittings.
- (4) Install (1) dual ground block.
- (5) Labor to plumb pole, pour concrete and rep-peak antenna.

## Satellite Dish 5:

- (1) Install (1) dual ground block.
- (2) Install (6) RG-6 compression fittings.
- (3) Install (15) feet of RG-6 Siamese coaxial cable at dish.
- (4) Labor to repair and re-peak antenna.

## Satellite Dish 6:

- (1) Install (1) 12' commercial grade aluminum antenna assembly.
- (2) Install (1) C/Ku feed-horn.
- (3) Install (2) Norsat model 8515 digital C-band LNB.
- (4) Install (1) Norsat model 4206 digital Ku LNB.
- (5) Install (1) Venture 24" ball screw actuator with rubber boot.
- (6) Install (1) dual ground block.
- (7) Install (6) RG-6 compression fittings.
- (8) Install (15) feet of RG-6 Siamese coaxial cable at dish.
- (9) Install (1) schedule 40 galvanized 3 ½" x 8' mast.
- (10) Install form using 2" x 6" x 8' lumber and set 8' mast in the middle.
- (11) Pour 1000 lbs of concrete in form.
- (12) Labor to pour concrete, set mast, assemble, track, and program new antenna and dispose of old antenna.

## Satellite Dish 7:

- (1) Solid fiberglass antenna is undamaged.

## Satellite Dish 8:

- (1) Install (1) dual ground block.
- (2) Install (6) RG-6 compression fittings.
- (3) Install (15) feet of RG-6 Siamese coaxial cable at dish.
- (4) Labor to repair and re-peak antenna.

## Satellite Dish 9:

- (1) Install (1) dual ground block.
- (2) Install (6) RG-6 compression fittings.
- (3) Install (15) feet of RG-6 Siamese coaxial cable at dish.
- (4) Labor to repair and re-peak antenna.

## Satellite Dish 10:

- (1) The non-steer-able mesh antenna appears to be undamaged.

## Communications World will work:

- (1) Install (1) Cushcraft A4S 10-115-20 meter beam.
- (2) Install (1) 10 feet galvanized 1 ¼" steel mast.
- (3) Install 50 feet of Belden 9913 50 ohm coax equipped with PL-259 ends.
- (4) Install (1) 1 ¼" thrust bearing on mast.
- (5) Install (2) Barker & Williamson BWDS-90 inverted Vee antenna.
- (6) Install (1) Hy-Gain CD-4511 antenna rotor/brake on mast.
- (7) Install 50 feet of 8-conductor rotor cable.
- (8) Install (2) FDMK mounting kit for BWDS antenna.

b. The materials to be provided in conjunction with the above service are as follows:

## Starvision will purchase:

- (1) 3 each 12 feet commercial grade aluminum mesh dishes

- (2) 5 each Norsat model 8515 digital LNB
- (3) 2 each Norsat model 4206 digital Ku LNB
- (4) 1 each stiff arm for stationary mounts
- (5) 2 each Venture 24" ball screw actuator equipped with accordion boot
- (6) 7 each dual ground blocks
- (7) 1 each dual C-band feed horn
- (8) 2 each C/Ku feed-horn
- (9) 42 each RG-6 compression fittings
- (10) 265 feet of RG-6 Siamese coaxial cable
- (11) 1 each 8 feet schedule 40 galvanized mast
- (12) 1 each 2000 lbs concrete
- (13) 1 each 5 ½" to 3 ½" mast adapter
- (14) 8 feet of 2" x 6" lumber plus screws
- (15) 4 each 2" x 6" x 4' lumber plus screws

Communications World will purchase:

- (1) 1 each Cushcraft A4S 10-15-20 meter beam
- (2) 1 each 10 feet galvanized 1 ¼" steel mast
- (3) 1 each 50 feet Belden 9913 (50 ohm) coax cable equipped with PL-259 ends
- (4) 1 each 1 ¼" thrust bearing
- (5) 2 each Barker & Williamson BWDS-90 inverted Vee antenna
- (6) 1 each Hy-Gain CD-4511 antenna rotor/brake
- (7) 50 feet of 8-conductor rotor cable
- (8) 2 FDMK mounting kit for BWDS antenna

- c. Schedule: The completion of this effort shall be 8 weeks after receipt of Fast Track approval (April 28, 2006).

## 12. SWR NMC0 6R40 00

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), to install (2) red Cat6 wires to support new classified SIPRNET network on the 2<sup>nd</sup> floor of B1100 South new addition for CNMOC; as outlined in OAO proposal dated February 16, 2006. This work will include testing, labeling, and configuration documentation (red line drawings).

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

- (1) Install (2) Cat6 red classified wires to (28) locations on the 2<sup>nd</sup> floor of B1100 South new addition.
- (2) Install (1) Panduit deep outlet box equipped with (2) red Cat6 jacks mounted in a singlegang faceplate at (28) locations.
- (3) Install (1) 19" x 84" aluminum equipment rack in room 22262 where CNMOC has had a new network room built.
- (4) Install (1) 48-port and (1) 24-port Cat6 patch panel in the equipment rack.
- (5) Install (2) double sided vertical troughs on aluminum equipment rack.
- (6) Install (3) cable management panels in the equipment rack to support the patch cords.

- (7) Terminate one end of the Cat6 wire on the patch panels that were installed in item (4) above.
- (8) Terminate the other end of the Cat6 wire on the (2) red Cat6 jacks that were installed in item (2) above.
- (9) Install Panduit raceway down the walls to the Panduit outlet boxes in the office areas and down behind the cubicles and place Cat6 wiring.
- (10) Install (1) Cat6 red classified wire from room 22262 down thru existing conduit to the 1<sup>st</sup> floor to room 11153A to be used to connect the new SIPRNET switch to the network.
- (11) Provide ODIN with redline drawing showing jack numbers and jack locations so that building drawings can be updated.
- (12) Test and label wiring at both ends.

b. The materials to be provided in conjunction with the above service are as follows:

- (1) 10,000 feet of plenum red Avaya 2071 level 7 wire (CMP-00424AVA-7U-03)
- (2) 56 each Systimax MGS400 T568A/B red Cat6 jack (246750)
- (3) 28 each Avaya M14L-262 white singlegang faceplate (197613)
- (4) 28 each Panduit deep outlet boxes (207082)
- (5) 18 each LD5 Panduit Raceway 8 feet (187594)
- (6) 4 each LD10 Panduit Raceway 8 feet (203227)
- (7) 3 each cable management panels (219824)
- (8) 2 each double sided vertical trough (166031)
- (9) 1 each Systimax 48-port Cat6 patch panel (246729)
- (10) 1 each Systimax 24-port Cat6 patch panel (246728)
- (11) 1 roll Velcro ties
- (12) 1 each 19" x 84" aluminum equipment rack (143582)

c. Schedule: The completion of this effort shall be 6 weeks after receipt of Fast Track approval (April 20, 2006).

### 13. SWR 1000 DCM6 12

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), to create and test hosting of an image for the CAC Card Reader software, including how to activate the Smart Card Service on all affected desktops; as outlined in OAO proposal dated March 30, 2006.

a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

- (1) Create and test installer image for web based install point (IDS) for the CAC.
- (2) Build into the install image code to turn on Smart card service.
- (3) Notify James Watson when it is available for distribution to his user population.

b. No material required for this effort.

c. Schedule: The completion of this effort shall be 4 weeks after receipt of Fast Track approval (April 20, 2006).

**14. SWR XK55 6501 00, Rev 01**

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and to provide support to Vaisala on the relocation of lightning detection system from building 4995 to building 4210; as outlined in OAO proposal dated April 11, 2006.

- a. The contractor shall be responsible for performance of the following tasks:

OAO will provide the following services:

ODIN to work:

- (1) Will mount GFE wall mount cabinet in basement of B4210 that will hold equipment that Vaisala will relocate from B4995.
- (2) Will install the two network jacks in basement area where lightning detection equipment will be mounted. This is not an office area where these are being installed.
- (3) Will activate new jacks in B4210 basement once we receive OWEB orders.
- (4) Will deactivate jacks in B4995 when we receive OWEB orders.

Vaisala to work:

- (1) Will disconnect satellite dish from roof of B4995 and take to B4210 and install on roof.
- (2) Will disconnect satellite receiver, associated Lantronix equipment, and shelf at B4995 and install in wall mount cabinet that was installed by ODIN in basement of B4210.
- (3) Will disconnect Electric Field Mill from room of B4995 and take to B4210 and install on roof.
- (4) Install EFM cable from Electric Field Mill that was installed on roof in item (3) above down thru conduit placed by MSS from roof down to basement. Pull string was provided.
- (5) Install RG6 coax from Satellite dish that was installed on roof in item (1) above down thru conduit placed by MSS from roof down to basement. Pull string was provided.
- (6) Connect to jacks that were installed by ODIN and test equipment.
- (7) Provide 4-hours of training per maintenance contract to those people needing the training.

- b. The materials to be provided in conjunction with the above service are as follows:

- (1) 225 feet of EFM cable (15179)
- (2) 250 feet of VSAT RG6 coaxial cable (08213)

- c. Schedule: The completion of this effort shall be no later than May 5, 2006, in coordination with the annual recertification of Lightning Detection System, and after receipt of Fast Track approval (April 24, 2006).

15. Part II "Contract Administration Data", Item 4, is revised as indicated below to incorporate the increase of \$208,459.78 for these infrastructure upgrades:

Month/Mod	Description	Monthly Total	Actual Total To Date
Apr-06	Ordered Seats and Services	\$ 450,854.76	\$ 6,896,080.37
Mar-06	Catalog Services	\$ 18,433.17	\$ 235,169.42
Mar-06	Specialized Services	\$ 270,088.41	\$ 271,498.41
Apr-06	Infrastructure upgrades	\$ -	\$ 1,943,803.57
Apr-06	Fast Track Mods Authorized (but not incorporated by Mod)	\$ 208,459.78	\$ 208,459.78
	sub-total of ordered services	\$ 947,836.12	\$ 9,555,011.55
Mar-06	Less outage credit	\$ -	\$ -
Mar-06	Less retainage not earned	\$ -	\$ (5,035.82)
	<b>TOTAL</b>	\$ 947,836.12	\$ 9,549,975.73

16. Payment Schedule: Invoicing and Payment for this modification will be made in accordance with Master Contract NAS5-98144, FAR 52.212-4: Commercial Items (May 1997) (Modified).
17. Reporting requirements: The contractor shall provide monthly status reports to the SSC DOCOTR, with a copy to the DOCO. These reports shall include, as a minimum, installation progress, and potential problem areas.
18. In consideration of the modification agreed to herein as complete equitable adjustment for the changes set forth, the Contractor hereby releases the Government from any and all liability under this delivery order for further equitable adjustments attributable to such facts or circumstances giving rise to these changes.
19. All other terms and conditions of this Delivery Order remain unchanged and in full force and effect.